

US PAT NO: 5,535,434 [IMAGE AVAILABLE]

L23: 2 of 100

DATE ISSUED: Jul. 9, 1996

TITLE: Carry case having paging circuitry section

US-CL-CURRENT: 455/89; 340/825.44; 455/90, 348, 349

ABSTRACT:

A carry case (102) for transporting an electronic device, such as a radio (100) or controller module (300), and providing paging capability when combined with the electronic device. The carry case includes a housing and contained within the housing is a first part or first section of a pager while the electronic device contains a second part or second section of the pager. Electrical interface contacts (504) located within the carry case (102) and electrical interface contacts (204) located within the electronic device allow for the paging circuitry to connect and form a complete pager. The electrical interface contacts of the electronic devices are common so that either can be combined with carry case (102) to provide either a radio and pager combination or a pager only option.

DETD(2):

DETD(2)

In . . . section for providing RF capability to the pager. A second pager section, which in the first embodiment comprises a pager **controller** section, is located within **radio** 100. The combination of the carry case **radio** **transceiver** 102 and pager **controller** located within **radio** 100 form a pager once **radio** 100 is mated to carry case 102. A display 104 located within the radio 100 is used as a means to translate messages to the user when a **page** is received. **Audio** circuitry, located within the **radio** 100, is used to generate a tone or verbal message to alert the user to an incoming message which is. . .

DETD(6):

DETD(6)

Referring . . . 102, the electrical interface contacts 204 and 504 mate and the pager will be formed by the electrical interconnect of **RF** circuitry 502 and pager **controller** 508. The side walls and back housing of carry case 102 act as a retention means and a guide for. . .

DETD(9):

DETD(9)

While . . . reside in the radio or module. It will also be dear to one skilled in the art that the micro **controller** 512 of the **radio** 100 could be powerful enough to act as the controller for the first section of the pager without the need for a **controller** in the **radio** interface portion 202, only the electrical interface contacts would be needed to transfer the functions between the radio 100 and. . .

US PAT NO: 5,457,732 [IMAGE AVAILABLE]

L23: 12 of 100

DATE ISSUED: Oct. 10, 1995

TITLE: Method and apparatus for delivery of a response in a messaging system

US-CL-CURRENT: 379/57, 58, 89, 201

ABSTRACT:

A system controller (102) operates in a messaging system (100) to deliver a response to a message. The response is communicated to a messaging terminal (115) at a response telephone number. The messaging terminal (115) includes a voice receive mode or a data receive mode, or both. A message input handler (404) receives the message and the response telephone number during a telephone call. A memory (408) stores the response telephone number in correspondence with the message. The message input handler (404) also receives the response, associates the message stored in the message memory with the response, and retrieves the response telephone number corresponding with the message associated with the response. A telephone response handler (420) delivers the response in accordance with the receive mode of the messaging terminal (115), using the retrieved response telephone number.

DETDESC:

DETD(2)

Referring . . . one of which is shown), through communication links 116, which typically are twisted pair telephone wires, and additionally can include **RF**, microwave, or other high quality **audio** communication links. In **message** store and forward stations, transmitter/receiver 103 encodes and decodes inbound and outbound telephone addresses into formats that are compatible with. . . The radio frequency transmitter/receiver 103 may also be used to transmit data or voice paging messages coupled from the system **controller** 102 to a portable **receiving** device 106 or the personal **radio** telephone 105, which have a keyboard and display. Acknowledgments to data messages, and data messages may also be received by. . .

DETDESC:

DETD(4)

It . . . unique within the selective call radio communication system 150. The address enables the transmission of a message from the system **controller** 102 only to the selected **radio** terminal, and identifies messages and responses **received** at the system **controller** 102 from the **radio** terminal. Furthermore, each of one or more of the radio terminals also has a unique telephone number assigned thereto, the. . .

DETDESC:

DETD(7)

Referring . . . data base 440, a telephone interface 406, and a response handler 420. The communication interface 402, queues data and stored **voice** **messages** for transmission to the **radio** terminals, connects telephone calls for transmission to the radio

terminals, and receives acknowledgments, data responses, data messages, and telephone calls. . . . response handler 420. The response handler 420 controls the telephone interface 406 to initiate telephone calls and deliver responses in **voice** or digital form to **messaging** terminals and switched **radio** terminals in a manner that is non-intrusive to a handset user, using the information stored the message memory 408, as. .

US PAT NO: 5,140,626 [IMAGE AVAILABLE] L23: 62 of 100
DATE ISSUED: Aug. 18, 1992
TITLE: Paging system for establishing telephone connection
between calling party and paged party
US-CL-CURRENT: 379/57, 56, 67, 201

ABSTRACT:

A method and system for establishing a telephone connection between a calling party and a paged party. When a calling party initiates a telephone call to a local area telephone system embodying the invention, a PBX serving the system transfers the call to voice processing equipment ("VPM"). The VPM responds by sending a voice menu to the caller over a telephone line. The voice menu provides the caller an option to page the called party, and preferably also provides the other options typically available in conventional voice mail and automated attendant systems. In response to selection of the paging option by the caller, an RF paging signal is transmitted to the paged party by a set of radio transmitters. The paged party carries a badge designed to vibrate (or otherwise signal the badge holder) upon reception of a paging signal intended for the paged party. In response to the paging signal, the paged party may go to the nearest telephone, and use the telephone key pad to instruct the VPM to establish a direct connection between the paged party's line and the caller's line. The invention enables a PBX system with only a few shared telephones to serve many people efficiently, enables more complete integration of PBX system users with a telecommunications/voice system, and enables employers to remain in close contact with their employees. No human operator is required to perform the functions of the inventive system.

DETDESC:

DETD(2)

An . . . system, the caller is never disconnected until he or she is given the option to page the called party by ****radio****, and is preferably also given the option to record a ****voice**** ****message**** for the ****paged**** party in the event that the paged party does not respond to the radio page.

DETDESC:

DETD(4)

VPM 6 may be a conventional adjunct processing unit ("APU"), of the type capable of being programmed to generate and ****send**** a voice menu, and to ****control**** peripheral equipment (such as a set of ****radio**** ****transmitters****), either in response to ****commands**** entered by a caller in response to the voice menu, or automatically after sending the voice menu.

DETDESC:

DETD(10)

If the caller selects the "paging" option on the second voice menu, VPM 6 keeps the caller on hold while it ****commands**** APU 8 to ****send**** a ****radio**** frequency paging signal to a ****radio**** transmission means (such

as point transmitters 12, 14, 16, 18, and 20 Connected along coaxial cable 10. Transmitters 12-20 preferably. . .

DETDESC:

DETD(17)

In a preferred embodiment, microprocessor 42 generates status signals in response to reception of **RF** **command** signals at **receiver** 40. Such status signals indicate such information as the location of the badge, and are transmitted in the form of. . .

DETDESC:

DETD(27)

FIG. . . . tones using a telephone keypad) one of several options such as: to dial the called party's extension, to store a **voice** **message** in a specified **voice** **message** file (mailbox), or to **page** the caller by **radio**.

CLAIMS:

CLMS(1)

What
local area;
radio paging equipment for transmitting a limited-range radio paging signal, having range limited to the local area, wherein the **radio** **paging** signal identifies the called party;
voice processing means connected between the **radio** paging equipment and the exchange means, wherein the voice processing means includes means for a called party to establish a . . . of access levels for selected types of calling parties, and a means for placing the calling party on hold and **commanding** the **radio** paging equipment to **transmit** the **radio** paging signal, in respect to a **paging** command generated by the **voice** processing means, whereby the menu and actions available to a specific calling party depends on the access level appropriate for. . .

CLAIMS:

CLMS(2)

2. . . . of:
(a) establishing a short address and a long address for a paged party;
(b) in response to reception, at a **voice** processing means, of a **paging** **command** from the calling party, **transmitting** a short address **radio** paging signal which identifies the paged party;
(c) receiving the paging signal at a plurality of reception devices responsive to the. . .

CLAIMS:

CLMS(3)

3. . . .
local area;

radio paging equipment for transmitting a limited-range radio paging signal, having range limited to the local area, wherein the **radio** **paging** signal identifies the called party;
voice processing means connected between the **radio** paging equipment and the exchange means, wherein the voice processing means includes menu means for sending a voice menu to. . . so that the called party is also a paged party, a means for placing the calling party on hold and **commanding** the **radio** paging equipment to **transmit** the **radio** paging signal, in respect to a **paging** command generated by the **voice** processing means; and
a paging signal reception device, including a means for receiving the paging signal and signalling the paged party. . .

CLAIMS:

CLMS (5)

5. . . .
therefrom; and
(f) supplying the long address signal to the voice processing means, wherein upon receiving the long address signal, the **voice** processing means transmits a **radio** **paging** signal including a long address which identifies the paged party in response to the paging command.

CLAIMS:

CLMS (7)

7. . . .
processing means when a paged party takes a receiving device to a remote local area,
wherein, following a call to the **paged** party, the **voice** processing means includes in the **radio** paging signal a long address code which identifies the paged party, rather than the short address code which identifies the. . .

US PAT NO: 5,128,981 [IMAGE AVAILABLE]

L23: 66 of 100

DATE ISSUED: Jul. 7, 1992

TITLE: Radio communication system and a portable wireless terminal

US-CL-CURRENT: 379/58, 59, 60, 61, 63

ABSTRACT:

This invention proposes a radio communication system including a plurality of radio terminals, a relay apparatus (including a plurality of base stations and an exchange station) connected to each radio terminal so that the radio terminals can interchange information from each other, and a data processing unit connected to the relay apparatus, each radio terminal having a circuit for inputting and outputting a voice signal and a circuit for inputting and outputting data whereby it can communicate with another radio terminals or with the data processing unit through the relay apparatus. The radio terminal of this invention further has a clock, and a circuit for storing a schedule inputted by the user thereby to automatically select a receiving mode such as a ringing mode or a nonringing mode in accordance with the contents of the schedule, the present time and so on.

DETDESC:

DETD(3)

FIG. . . . 101 has in its output section a switch (not shown) which is operated by a carrier ON/OFF signal from a **radio** **controller** 107 so that unnecessary **radio** waves are not produced in the standby mode. Shown at 102 is a receiving circuit which amplifies a weak signal. . . transmitting and receiving. Shown at 104 is a whip or built-in antenna. The frequency synthesizer 105 is ordered by the **radio** **controller** 107, to determine transmission and reception frequencies, or transmission and reception channels, and to supply local oscillation frequencies to the transmitting circuit 101 and to the receiving circuit 102. The modem 106 is ordered by the **radio** **controller** 107, to modulate digital data (for example, 1, 0, 1, 1, . . .) being transmitted, into, for example, . . . example, MSK, or minimum shift keying modulation) and to demodulate the received modulated wave into the original digital information. The **radio** **controller** 107 **controls** channel setting and opening procedure, exchange of digital information with the base station, specifying channels (controlling the synthesizer 105 to. . .

DETDESC:

DETD(6)

FIG. . . . 301, a receiving circuit 302, a branching filter 303, an antenna 6, a synthesizer 305, a modem 306, and a **radio** circuit **controller** 307, which have the same functions as the circuits 101 to 107 included in the terminal 2 mentioned with reference. . . thus will not be described. The modem 308 has the function of modulating a signal which is produced from the **radio** circuit **controller** 307 and which orders to set and open the channel to the communication controller 4, into digital information and has. . .

DETDESC:

DETD(10)

When . . . 1 requests a communication channel to be established, to the data processing unit 2, a call initiation demand signal is ****transmitted**** on a preset ****radio**** ****control**** up-channel.

DETDESC:

DETD(17)

The . . . the incoming call request signal transmits a channel specifying signal including the identification code of the specified terminal on the ****radio**** ****control**** down-channel.

DETDESC:

DETD(25)

When the communication is completed, and the channel is desired to be opened, the central processing unit issues a ****command**** to stop the ****radio**** transmission from the base station and then open the channel connection to the communication controller. The terminal, when detects that. . .

DETDESC:

DETD(27)

It . . . When the communication channel setting is possible, it issues the request for the communication channel setting to the communication mode ****control**** circuit 110. The ****radio**** ****controller**** 107 makes a calling procedure for treating the data processing unit as the called party, so that a channel is. . .

DETDESC:

DETD(42)

When . . . 111 sets the communication mode control circuit in the telephone mode. Then, a request for calling is sent to the ****radio**** ****controller**** so that a ****radio**** channel is established between the terminal and the base station. The secretarial service circuit 111 regards the numerical input from. . .

DETDESC:

DETD(75)

The . . . such as a communication control signal and a electric mail, and the voice message recording circuit 128 for storing the ****voice**** ****message**** transmitted or the ****voice**** ****message**** being ****transmitted****. The ****radio**** circuit section is ****controlled**** by a microprocessor (CPU) 921 through a ****radio**** ****control**** I/O 920. The microprocessor section includes a ROM 922 having a program stored therein, a RAM 923 serving as a. . .

DETDESC:

DETD(77)

The CPU 921 makes ****radio**** ****control**** and ****control**** of secretarial function, and the program for these control operations is stored in the ROM 922. FIG. 16 shows the. . . ROM 922. The program includes a basic input/output system BIOS, 1300 for radio communication, serving as a subroutine group for ****controlling**** the ****radio**** system, a basic input/output system BIOS, 1301 serving as a subroutine group for keying, display, timer, clock and bell, an. . .

DETDESC:

DETD(79)

Although the terminal 1 in the first embodiment includes the ****radio**** ****controller**** 107 for ****radio**** channel ****control**** and the communication mode control circuit 110 in addition to the microprocessor 111 having the secretarial service function, in this. . .

DETDESC:

DETD(87)

The portable telephone 41, when receiving a signal for requesting the incoming call from the ****radio**** base station, starts the incoming ****control**** program 1305.

US PAT NO: 5,117,460 [IMAGE AVAILABLE] L23: 67 of 100
DATE ISSUED: May 26, 1992
TITLE: Voice controlled pager and programming techniques therefor
US-CL-CURRENT: 381/41; 340/311.1, 825.44; 367/198

ABSTRACT:

An individual desiring to operate a pager via voice commands sends a message to a repository of voice recognition codebooks requesting access to a particular codebook. The repository device(s) respond by transmitting the codebook of that individual to at least one pager, which stores the codebook therein. In a second embodiment, each individual operating a pager by voice commands is provided with a codebook module, which contains suitable memory storage having at least that operator's codebook stored therein. By inserting the codebook module (or card) into the pager, that pager becomes at least partially controllable by the voice commands of that operator. The codebook module may be easily removed to permit the communication device to be rapidly reprogrammed by inserting the codebook of another operator.

CLAIMS:

CLMS (1)

What is claimed is

1. A pager being at least partially controlled and operated via voice ****commands****, comprising:
****radio** **receiving**** means for ****receiving**** voice recognition data for an individual from a repository station having voice recognition information for a plurality of individuals, the. . .

CLAIMS:

CLMS (23)

23. . . .
transmitting the voice recognition data for particular individuals to at least one pager;
(a) audio receiver means for receiving audible ****voice**** signals generated externally from said ****pager****;
(b) ****radio**** receiver means for receiving the voice recognition data from the repository station;
(c) memory means for storing the voice recognition data. . .

CLAIMS:

CLMS (27)

27. . . .
for the identified individuals to at least one pager;
at least one pager, comprising:
(a) audio receiver means for receiving audible ****voice**** signals generated externally from said ****pager****;
(b) ****radio**** receiver means for receiving the voice recognition data from the repository station;
(c) memory means for storing the voice recognition data. . .

US PAT NO: 5,600,703 [IMAGE AVAILABLE] L10: 3 of 27
DATE ISSUED: Feb. 4, 1997
TITLE: Method and apparatus for remotely retrieving messages
intended for an acknowledge-back pager in a selective
call communication system
INVENTOR: Tri T. Dang, Coconut Creek, FL
Kwok K. Choi, Coral Springs, FL
Lowell C. Hufferd III, Delray Beach, FL
APPL-NO: 08/393,797
DATE FILED: Feb. 24, 1995
US-CL-CURRENT: 379/57; 340/313, 825.44; 379/58

ABSTRACT:

A method and apparatus remotely retrieves messages intended for an acknowledge-back pager (400, 700) in a communication system including a fixed portion (100) and the pager (400, 700). The communication system has provisions for interconnection with a user by telephone. The fixed portion (100) accepts (502) a selective call origination from a caller, including a message intended for the pager (400, 700) and sends (504) the message to the pager (400, 700) in response. The pager (400, 700) stores (506) the message within a pager memory (418). Thereafter the fixed portion (100) accepts (508) a selective call origination from the user, including a predetermined retrieval code associated with the pager (400, 700). The fixed portion (100) sends (510) a predetermined retrieval command to the pager (400, 700) in response, and the pager (400, 700) retrieves the message from the pager memory (418) in response. The pager (400, 700) transmits (512) the message retrieved to the fixed portion (100), which then stores (514) the message within a controller memory (232, 602) and sends (514) the message by telephone to the user.

SUMMARY:

BSUM(10)

Another aspect of the present invention is a ****controller**** for providing ****remote**** retrieval of ****messages**** intended for an acknowledge-back pager in a selective call communication system including a fixed portion comprising the controller and a . . .

SUMMARY:

BSUM(11)

Another aspect of the present invention is a ****controller**** for providing ****remote**** retrieval of ****messages**** intended for an acknowledge-back pager in a selective call communication system including a fixed portion comprising the controller and a . . .

CLAIMS:

CLMS(9)

9. A ****controller**** for providing ****remote**** retrieval of ****messages**** intended for an acknowledge-back pager in a selective call communication system including a fixed portion comprising the controller and a . . .

CLAIMS:

CLMS(13)

13. A ****controller**** for providing ****remote**** retrieval of ****messages**** intended for an acknowledge-back pager in a selective call communication system including a fixed portion comprising the controller and a. . .

US PAT NO: 5,604,791 [IMAGE AVAILABLE] L10: 2 of 27
DATE ISSUED: Feb. 18, 1997
TITLE: Single line telephone answering system with access
security features
INVENTOR: Shonh S. Lee, 267 Pulido Rd., Danville, CA 94526
APPL-NO: 08/390,278
DATE FILED: Feb. 15, 1995
REL-US-DATA: Continuation of Ser. No. 135,733, Oct. 13, 1993,
abandoned.
US-CL-CURRENT: 379/67, 142, 199, 217, 375

ABSTRACT:

A versatile phone system, consisting of a base unit and one or more peripheral utility devices, is used on the user's premises to provide an effective and private means of telecommunication. A plurality of telephone numbers and names are stored in the memory means of the base unit. The system responds to the ringing signals transmitted over the phone line from the caller without triggering ringer generators at the telephone sets. Alerting ringing sounds to alert the user of an incoming call will be generated only when the derived code of the received DTMF signals matches the derived identifier codes of the stored telephone numbers or the personal access code. Distinct ringing sounds will be generated if a match is on a derived identifier code of a telephone number indexed with priority. When no match occurs or a match occurs but the user does not answer after a predetermined number of rings, the caller is directed to a recording means for requesting to leave message.

SUMMARY:

BSUM(24)

The . . . an alerting message is received by the user's cellular phone or a designated telephone, the user manipulates a sequence of **remote** **control** codes to review the recorded **messages** and telephone numbers. Upon reviewing the messages, the user can decide whether to return the call.

DETDESC:

DETD(2)

In . . . system across a single telephone line. The system utilizes microprocessors to perform sophisticated operating, recording and reviewing functions of voice **messages**, **remote** **control** and screening **operations**. A telephone directory which is able to store up to hundreds of telephone numbers is created. An identifier or code. . .

DETDESC:

DETD(39)

An . . . a short message such as "you have messages" transmitted over the phone line. The user can then respond by manipulating **remote** **control** codes to listen to the **message**(s) and telephone number(s) stored in the voice memory 130 of the base unit. If the transfer means is to communicate. . .